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ABSTRACT

The complexities of assessing undergraduate program quality and outcomes in professional schools are reviewed, and the use of comprehensive assessment models is advocated. Two assessment models are described, that of the National Center for Research to Improve Postsecondary Teaching and Learning (NCRIPTAL) and that model developed by Conrad, et al. (1987). Existing assessment strategies in six professional schools at a major research university are examined in light of the Conrad model. The schools were found to meet the demands of the model in terms of collecting information about students, the campus environment and student outcomes, but the university was found wanting in the uses to which the assessment is put and in the lack of focus on the institutional environment's effects on student learning and development. The accreditation process at the six schools is examined in its potential effects of strengthening programs, long-range planning and enhanced teaching and learning. The self-study aspect of accreditation is considered helpful in developing and coordinating assessment and in yielding information useful for assessment. Recommendations for improvements in assessing undergraduate professional education include: assessing general education ("breadth of knowledge"); the articulation of general abilities and characteristics common to most professional fields; further research; and more comprehensive assessment. Contains 17 references. (KM)

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The Unique Opportunities and Vexing Challenges of Undergraduate Program Assessment in Professional Fields

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Research on Assessing Undergraduate Education Quality and Outcomes

at the 1989 annual meetings of the
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Abstract: This paper reviews the complexities of assessing undergraduate program quality and outcomes in professional schools, advocating the use of comprehensive assessment models. One case study institution's professional school assessment efforts, and accreditation processes for several professional fields, are scrutinized in the light of an exemplary comprehensive model. Recommendations for strengthening professional schools' assessment efforts complete the discussion.

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For many reasons the decade of the 1980's has brought to colleges and universities a new set of concerns. Internal forces such as the need for program changes to accommodate a rapidly changing world, refinements in academic program review strategies, and increased emphasis upon general studies have caused academicians and administrators alike to rethink their notions of "quality" in undergraduate education. External forces have included society's increasing interest in educational quality, diminishing resources for education, and concern that institutions of higher education have not been sufficiently accountable for their activities. A number of nationally circulated reports have addressed these issues, offering in some instances sweeping recommendations for improving undergraduate education.

In both the arts and sciences and the professional schools, responses to both external and internal forces have varied, but they have invariably included realigned views of what constitutes educational "quality." As we in this audience today know, and administrators and faculties throughout higher education are finding, identifying "quality" in terms of the institution's effects upon students is a pedagogically and methodologically complicated and both politically explosive matter. Both for the nonprofessional fields and for the professional fields the forces, responses, complications, and explosions are occurring on campus after campus.

In most instances these social trends, institutional forces and national reports have been interpreted as addressing undergraduate education in the arts and sciences. When major documents addressing academic program assessment do deal with students' specialized learning, professional education is often treated as "just another" major, although as college and university enrollment trends continue to increase in professional fields, this dismissal is increasingly unwarranted. Discussions of professional fields' assessment in "just another major field" terms unfortunately misses the mark (e.g. Appelbaum, 1988). Even more sadly, some nationally circulated reports calling for undergraduate educational improvement and accountability have treated professional education disapprovingly, indeed disparagingly:

> "The danger to intellectual growth in such programs...is excessive structure and over-prescription of training in currently fashionable technique, ephemeral information, and obsolescent technology" (Bennett, 1984).
>
> "Accreditation standards for undergraduate professional programs often stand as barriers to the broad understanding we associate with liberal learning" (Study Group, 1984).

A Focus upon Professional Schools

Today's symposium steps back from the volatility of society's despair about higher education in general in order to focus a critical eye upon one form of response -- the movement toward assessing the quality and effects of higher education. Our own contribution in this discussion is to turn from the larger efforts discussed by others today to assessment in a particular realm -- the question of assessment's meaning for professional schools and their faculties.

Our frame for this discussion has two main elements: we are bringing to bear upon the unique situation of professional education the vast and thoughtful literature on assessment, and we also are using the unique nature of professional education to illustrate some important points about assessment.

Definitions of professions, professionals, and professional schools vary; these varying definitions do not, however, address the same issues. The granddaddy of writers about professional education, McGlothlin, (1964) attempted a definition drawing in part upon Flexner's. More recently, the writers of the Professional Education chapter in the Handbook of Research on Teaching (Dinham & Stritter, 1986) offered a variety of definitions and then concentrated their discussion upon the "apprentice" component of professional education; Goodlad (1984) has attempted another, broader definition.

For this discussion of our research, however, it is the professional school rather than the profession that concerns us. We began our study of professional schools by identifying the defining characteristics of the professional school in higher education -- principally in universities. From the literature from various fields of study and from close examination of catalog information and sample departmental surveys, a number of characteristics distinguishing professional schools were identified. Because our present concern is undergraduate program assessment, these characteristics were pared to focus upon undergraduate education in particular. The result was a list of six criteria:

> the baccalaureate degree is considered the first professional degree and is a minimum requirement for entry into practice
>
> the program leads to eligibility to take a qualifying licensure examination and/or meet certification requirements; these are prerequisite and required for professional practice
>
> accreditation is conducted by a national and/or state professional agency of governing board

review of the literature on professional programs demonstrates that the field of study is considered professional

the time allotted for full-time university study is four to five years

the degree obtained from the program prepares the graduate for a professional occupation

These criteria, summarized in Figure 1 with a scattering of illustrative fields, would yield a different listing of professional schools for virtually every university. For that matter these criteria would yield a different listing as well for every possible way they could be applied. Moreover, a number of omissions from this list could well be controversial. For example, Medicine and Law are missing; both are considered post-baccalaureate programs even though technically they might not require an undergraduate degree for admission, and in Medicine the medical students are called "undergraduates" to distinguish their study from "postgraduate" internships/residencies. Pharmacy is missing; at some institutions Pharmacy is a baccalaureate program but at others the entry to practice is through a Doctor of Pharmacy degree. Still others missing -- for example Dietetics -- are often buried within other units that offer principally non-professional degrees.

The six criteria listed above and summarized in Figure 1 define the domain of our thinking about assessment for professional schools. What, then, is the uniqueness of professional education and how does that uniqueness influence the assessment effort?

Advantages and Disadvantages for Professional Schools

For professional schools these days, today's social forces, academic realignments, and changing definitions bring both opportunities and challenges, of which two the challenges often seem more apparent.

As a "given" of their challenging role in academe, professional schools serve multiple constituencies, each constituency with its perception of academic "quality" in general and undergraduate educational "quality" in particular. The local, state and national communities of practitioners and the national accrediting and licensure agencies are but two groups. Even within itself, the faculty (and often within herself the typical faculty member) must reconcile competing scholarly demands -- for professional practice, for research and creative productivity,

FIGURE 1

ILLUSTRATIVE MATRIX FOR DEFINING
CHARACTERISTICS OF
UNDERGRADUATE PROFESSIONAL SCHOOLS

DEFINING CHARACTERISTICS:	ARCHITECTURE	BUSINESS	EDUCATION	ENGINEERING	JOURNALISM	NURSING	PHARMACY	LAW	MEDICINE	LIBERAL ARTS DEGREE SUCH AS ENGLISH
4-5 year baccalaureate program	*	*	*	*	*	*	*	NO	NO	*
Included in literature on profession education	*	*	*	*	*	*	*	*	*	
Baccalaureate degree minimal required for entry into practice	*		*	*		1	2	N/A	N/A	
Licensure or certification required for entry into practice	*	3	*			*	*	*	*	
Program is accredited	*	*	*	*	*	*	*	*	*	
Degree leads specifically to defined professional occupation	*		*	*	*	*	*	*	*	

1. ANA recommends BSN though 3 levels of Nursing (diploma, ADN, BSN) still exist.
2. Pharm D is now considered 1st professional degree.
3. Some but not all business occupations, eg. CPA, financial planners.

and for influencing the practicing community as well as for undergraduate and graduate teaching.

In part because of the saliency of some of these constituencies' demands, the faculty's chief reference group may be other professionals, rather than other academic groups within the university. Professional fields lodged within nonprofessional colleges bear the special burden of this split in reference group. Dietetics faculties within Home Economics, for example, or Journalism faculties lodged in Social Sciences, can find both personnel review (Dinham, 1987) and program review problematic in a context driven by other paradigms.

Perhaps because of the multiple constituencies, and perhaps because of the outward focus, professional schools' faculties can too easily dwell on their uniqueness and become isolated -- whether in reality or in perception-- from the academic milieu within which they must function and through which undergraduate program assessment occurs. Even when undergraduate program assessment is undertaken to strengthen and refine education, a disaffected and isolated faculty cannot see much campus advantage in working hard to expose themselves to scrutiny.

Indeed "working" on assessment may be -- for the assessment effort -- either a problem or an advantage. Professional faculties are accustomed to the discipline imposed by their accrediting agencies; they are accustomed to the continuous monitoring they and their peers exercise for one another. In contrast with their arts and sciences brethren, they are more experienced at this monitoring, and take it as (at least) a professional fact of life rather than an imposition.

Beyond experience with accreditation, professional schools have a number of advantages in designing assessment efforts. As we have said previously (Dinham, 1988), professional schools are advantaged in having a more tangible audience -- the practicing professional community beyond the school's door. While the academic community and practicing community's relationships can be checkered and varied, in this instance the practicing community can serve the professional school well.

The practice focus of professional education serves assessment well not only for evaluating the strength of the professional program but also for assessing general education. General education goals such as academic skills, breadth of knowledge, student development and intellectual habits of mind are more likely to be manifest in the capstone experiences of professional curricula than in other fields of less concrete focus such as the liberal arts. While discerning these fine goals in specific practical application may be a methodological nightmare, at least there is a context in which to make the effort.

Further, in some fields such as medicine, engineering, nursing, and architecture, the early postgraduate years can provide useful information for examining the long range influences of the undergraduate educational program. Research on graduates is of course easier when they move from the school into a prescribed internship where -- at least in theory -- rigorous monitoring of the graduate's skills and knowledge can serve assessment.

Certification and licensure for practice by our professional schools' graduates could also provide information for assessment. The problem for many professions is that item-by-item or even topic-by-topic information about (even cohorts of) graduates' performance may not be available to the school from the licensure examining board.

A final advantage for professional schools can be found in the organizations of schools [of business, architecture, dentistry, for example] that can serve as a resource to individual member schools embarking on newly coordinated assessment efforts. Just as in other areas, however, these organizations vary in the roles they play in assessment. The lead in organizational leadership for assessment has been played by the American Assembly of Collegiate Schools of Business.

Models for Assessment of Undergraduate Education

A model to guide undergraduate educational assessment must be chosen to suit the institution's purposes in undertaking these costly and far-reaching efforts. Two purposes predominate when the term "assessment" is used with an institution-wide connotation: (1) institutional accountability to society in general or other external agencies in particular, and (2) information gathering to strengthen the base for institutional decisions -- for example for strategic planning, program revision, or resource allocation. (A third construction of the term "assessment" describes information gathering for guiding student learning; our present discussion of institutional purposes does not address this third meaning.)

Because for a professional school the first (accountability) purpose is already served by the accreditation process, addressing the second purpose is more likely to meet professional schools' and their parent institutions' further needs. Our first criterion for an assessment model, then, is that it serve this purpose -- that it provide information to strengthen the professional school under scrutiny. The next criterion follows: for an assessment effort to serve this purpose, the data collected must serve the decisions contemplated -- for example decisions about program refinement, long-range planning, personnel deployment, departmental outreach, new program

directions, student services. A next criterion for an assessment model serving these organic and changing needs follows: assessment should involve those most involved in these decisions and changes -- in most cases the faculty of the professional school, together with others comprising the school's broad constituency. A last and the most important criterion is implied by the others: assessment information should make it possible to analyze how the institutional environment influences student outcomes, and should point to changes that would improve student outcomes.

Professional schools undertaking assessment efforts thus will be best served by an assessment model that (a) focuses on program-enhancement purposes, (b) produces useful data to serve decision making, (c) involves the interested parties in the effort, and (d) suggests areas for refining the institutional environment to strengthen students' learning. Such assessment efforts will be controversial (because they do not ideally serve other alternative needs), and will be costly (because comprehensive), but will be the most likely to be successful (because undertaken by the most affected parties).

Two assessment models meeting these criteria will illustrate these points. The first is implied in the research agenda (Alexander & Stark, 1986) of the National Center for Research to Improve Postsecondary Learning and Teaching (NCRIPTAL). This research agenda includes three realms: independent variables such as student characteristics, alterable variables such as teaching/learning environments, and dependent variables such as student outcomes. By denoting teaching/learning environments as "alterable", NCRIPTAL researchers imply that institutional changes are possible, and that changes in the teaching and learning environments that students experience can influence the institution's effects upon students. This recognition -- indeed, expectation -- of change marks the comprehensive, program-strengthening assessment model.

Another comprehensive assessment model was developed by Conrad and his colleagues at about the same time (Conrad, et al., 1987). This group first gave their attention to the nature of undergraduate education:

> An undergraduate education should help students acquire both general and specialized knowledge, should cultivate intellectual skills, should foster sound intellectual habits of mind, and should concern itself with student development.

Following this definition they turned to a conception of assessment that would serve broad purposes. The ideal assessment model, they said, manifests five basic principles: faculty leadership, a multidimensional view of quality, multiple methods

of assessment, multiple sources of information, and reliance wherever possible on existing data.

The effort resulting from the Conrad et al. work is an assessment program that attempts to link student characteristics, elements of the college environment, and student outcomes (see Figure 2). The overall goal is to identify how students' experiences in the university environment influence important student outcomes, so that where failures are seen, elements of the university can be strengthened or corrected.

These purposes, principles, and overall goal imply certain operating procedures for a campus assessment effort. The procedure in place at this university:

> emphasizes that assessment is intended to serve as a useful vehicle for enhancing the undergraduate experience -- to generate significant improvements in the quality of teaching and learning;
>
> affirms that assessment of both programs and students is currently underway in many quarters of the University;
>
> proposes a systematic and comprehensive plan to lead to improved teaching and learning; and
>
> proposes that ultimately the effort should focus upon the institutional environment's effects on student learning and development.

Existing Assessment Strategies in Six Professional Schools at a Major Research University

The Conrad model underlies the assessment efforts at the institution providing the case examined next in this paper. In this section we examine six professional schools of one land-grant, Research I, A.A.U. university to determine how assessment procedures in place match the principles in the Conrad model. Following this single case example, we conclude this paper with a discussion of practical issues for professional schools' assessment of undergraduate educational program quality and effects.

To test the application of a comprehensive evaluation model in a single university, we chose six professional schools in our case institution: nursing, engineering, education, journalism, business, and architecture. Information about their assessment strategies came from three diverse sources: the university catalog, a survey of all departments/schools in the university concerning data collected on all undergraduates, and interviews

with administrators and advisors from each of the study schools. We were interested in outcome measures currently available on students in these schools, licensure and/or certification requirements, accreditation requirements, and information kept about students after graduation.

In addition to soliciting information separately from each college, we noted for all colleges three potential sources of student outcome information: general education ("general studies," or "liberal education") courses taken principally in the first two college years, a rising-junior university-wide writing proficiency examination, and a university-wide requirement that every student take "writing emphasis" courses in their major field.

Across the six professional schools, we found that various strategies to assess both general and professional study are in place to assess students at pre-admission, in-program, and post-program stages.

The pre-admission strategies rest upon university-wide admission requirements. All schools except Journalism reported using special requirements beyond the standard university admission criteria which must be satisfied prior to beginning professional course work. (Journalism requires only that the student be sophomores to enroll in the beginning journalism class. The other five schools require specific grade point averages, specific course work, and formal applications.) The pre-admission requirements are for the most part focused on general education course work and skills, with the exception of architecture, business, and engineering where preprofessional course work is a part of the advanced standing or admission requirement.

While students are in these programs, professional study is assessed in a variety of ways. The most obvious of these are the strategies which assess the professional knowledge, skills, and attitudes within the major. All six schools require a "capstone" or synthesis experience at the senior level. These courses require senior projects, and/or demonstration of professional competencies in an internship or preceptorship practicum experience. All schools, except business, have an ongoing evaluation of students' progress in developing as professionals. Business students do take a synthesis course determined by the major at the senior level, but professional skills addressed by curricula within the college are quite diverse and are not as specific to a particular occupation as are those in the other fields. Journalism has a professional evaluation of students' work in designated courses within the major which augment the grading process. Architecture embodies continual review processes in the studio experiences. Nursing students receive clinical evaluations in all practicum course work. In

engineering, students receive feedback on their lab projects in the various majors. In the student teacher experience, education majors receive evaluation from their cooperating teacher and supervising faculty.

Assessment of general education outcomes in the professional schools is less direct. It is, further, concentrated in skill areas rather than in the areas commonly known as "liberal studies." The professional schools that have advanced standing policies or admission at the junior level, require that the writing proficiency examination mentioned above be successfully completed prior to enrollment in the professional school. In addition, all fields designate writing emphasis courses (also mentioned above) which focus on the students' communication skills in the professional course work. Evidence of assessment of quantitative skills, and appreciation of other cultures, the basics of which are begun within general education courses, can be seen in some course professional descriptions. Skills requiring critical thinking and problem solving are evaluated during professional practica or internship-type experiences. However, no assessment mechanisms are in place for focusing upon general education.

In addition, we found two examples of standardized tests used during the undergraduate program to assess professional knowledge. In nursing, the NLN exams for several specialty clinical areas are administered following the completion of corresponding clinical courses. In this state, education students are required to take the professional knowledge portion of the Arizona Teacher Professional Exam prior to student teaching. The Engineer In Training Exam, available to senior students, is another example of a standardized professional exam.

Tracking of students' employment success and satisfaction after graduation is in place to some degree in engineering, journalism, and nursing. Most schools have told us they are particularly interested in following the professional activities of their graduates more closely.

Other postgraduate assessment mechanisms include the standardized national board examinations required in nursing and architecture. For nursing graduates, the state board exam is required for practicing as a registered nurse and is taken shortly after graduation. The National League for Nursing notifies the College of Nursing of the results of the exams. In architecture, three years of internship experience following graduation is required before qualifying to take the state board exam. Unhappily, we learned that state board exam results are not sent to the graduates' architecture schools.

No standardized professional exam is required of journalism, engineering, or business graduates prior to employment. Often,

of course, accounting majors in business who are seeking CPA credentials, or business graduates who pursue licensure as brokers or certified planners will sit for the appropriate examinations at a later time. An optionally available professional engineers' credential requires standardized exams and experience. No parallel exam is available in journalism or general business. To obtain teaching positions in this state, education students must meet certification requirements including the state's the Professional Teacher Exam.

Comprehensive Assessment Efforts in Professional Schools at the Case Study Institution

And how well does this institution's array of existing assessment efforts match the spirit of a comprehensive assessment model (Figure 2)?

All professional schools studied in this case example assemble data about students. However, these data tend to serve admissions decisions rather than broader goals, and therefore are less useful for advising, for tailoring curricula, or for studying the link of student characteristics to the institutional environment or to student outcomes.

All schools we studied also gather student outcomes information in one form or another. For example, intellectual skills such as problem-solving, communication, library skills, and quantitative skills are said to be assessed in most professional schools. Likewise, intellectual habits, such as openmindedness, intellectual motivation, and commitment, although somewhat more difficult to measure, are reported to be important in many senior level "capstone" courses. Much of the higher level critical thinking and integrated writing skills, for example, are addressed in professional course work; usually it is the student's knowledge and skill applied to the professional field that is being so carefully evaluated.

In contrast to skills and habits, the breadth of knowledge referred to as "general education," (e.g. arts and literature, western and non-western civilization, sciences, the study of individuals and societies) seems more likely to be short-changed in professional schools' assessment of student outcomes. At this institution, while each professional school requires some general education course work, students' general education experience can be haphazard, lacking both the overall coordination of an arts and sciences general education and the opportunity for students to enroll in a great variety of courses, and students' general education outcomes are not directly assessed.

All schools that we studied also measure some aspects of the institutional environment -- the important intervening (or "alterable") element in a comprehensive assessment model. Teaching effectiveness measures, for example, are commonplace across all university campuses. Some university central administrations maintain continuous evaluation of other institutional environment factors, for example through institutional research or student affairs offices. The professional school itself is of course less likely to gather such data unilaterally.

In sum, all three important components of a comprehensive assessment model were represented in the data gathered at this research university. Clearly the professional schools in this sampled institution do gather substantial amounts of information about students, the campus environment, and student outcomes. Assessment's purpose lies, however, not in these separate elements but in their relationships, and in the actions that can be taken as a result of these relationships. On this score these professional schools individually, and therefore this institution (presumably like many other such institutions) is found wanting.

Our case institution's recently adopted assessment policy rests on a comprehensive model. Of the principles underlying the Conrad model, only the first has been confirmed by this review of assessment practices in the institution's professional schools.

> Confirmed: assessment of both programs and students is currently underway in many quarters of the University;
>
> but the review of professional schools' existing assessment efforts shows no evidence that assessment serves as a useful vehicle for enhancing the undergraduate experience -- to generate significant improvements in the quality of teaching and learning;
>
> and there is no evidence that the school is implementing a comprehensive plan to lead to improved teaching and learning; and
>
> nor is there evidence that the effort is intended to focus upon the institutional environment's effects on student learning and development.

How can assessment of professional programs for program strengthening, long range planning, and enhanced teaching and learning be accomplished? In a search for these answers we turn next to accreditation, the mechanism professional schools have historically depended on for answers to these questions.

Accreditation

Assessment concerns are often said to be embedded in existing accreditation requirements for professional schools. The contribution that accreditation makes is consequently important to our understanding of and planning for assessment in the future. Particularly in large universities aspiring to implement comprehensive assessment models, accreditation is an important element in the overall plan.

In their recent review of accreditation standards, Hagarty and Stark (1989) found that few professional accrediting agencies place assessment of explicit outcomes high on the list of criteria for accreditation. This conclusion they found especially perplexing considering the strong importance attached by professional school faculties to these explicit outcomes. Even those fields with quite explicit outcomes do not, they found, necessarily demonstrate any "association of explicitness with perceived rigor of the accrediting agency, with endorsement of the specified outcomes by faculty in their field, with faculty estimates that outcomes receive greater emphasis in their programs, or with clarity of educational activities assumed to achieve the outcomes" (p.18). Clearly, despite professional schools' historic reliance on accreditation for maintaining academic standards and strengthening undergraduate programs, that reliance shows no relationship to any comprehensive view of assessment.

In our own research with our single institution, accreditation criteria for each professional field were analyzed, and we also discussed accreditation during interviews with the administrators and advisors at these professional schools. We then compared what we had learned about accreditation with the important elements of a comprehensive model -- the student characteristics, institutional environment factors, and student outcomes that combine to form a comprehensive assessment.

The accreditation process is similar for all six professional schools. The process begins with a self-study written according to criteria established by the accrediting body. The self-study is comprehensive and includes details about assessment of students and evaluation of various aspects of the program. With the self-study completed, a visit is made to the school by appointed experts in the appropriate field. These experts meet with students and faculty as well as the university President or chief academic officer. A final report indicates a decision about accreditation, usually with rationale and suggestions for maintaining or improving the program.

In our review of accreditation materials for these professional schools, we found both criteria requiring assessment of student outcomes, and criteria for attention to liberal learning. "A

comprehensive system, which includes more than one measure, is used to assess the personal characteristics, communications, and basic skills proficiency of candidates preparing to teach," (National Council for Accreditation of Teacher Education). "The curriculum emphasizes independent judgment," (National League for Nursing). "Competency in written communication in the English language is essential for the engineering graduate. "Oral communication skills in the English language must also be demonstrated within the curriculum by each engineering student," (Accreditation Board for Engineering and Technology). The accreditation requirements for professional schools have indeed made student outcomes assessment an integral part of program activities for some time.

We also found that many accreditations require attention to elements of the institutional environment, such as student-faculty interaction, resources for learning, teaching effectiveness, and advising programs in self-studies.

At least three optimistic conclusions can be drawn from these findings: 1) Self-study accreditation reports include data that could contribute to the larger campus-wide assessment effort; 2) useful ideas about assessment can be found in accreditation guidelines; and 3) a campus-wide assessment effort can fruitfully be coordinated with individual professional schools' accreditation self-studies. These optimistic conclusions are not unique to this effort but echo Lincoln's (1988) observations on the interrelationships of assessment and accreditation.

A further conclusion is less benign. Accreditation has been a fact of postsecondary professional education for decades, and accreditation efforts have historically intended to improve educational programs. However the formal processes currently in place are sadly lacking. The traditional models are simply not designed to demonstrate links between student characteristics, institutional characteristics, and student outcomes. Without these links, accreditation is an insufficient means for:

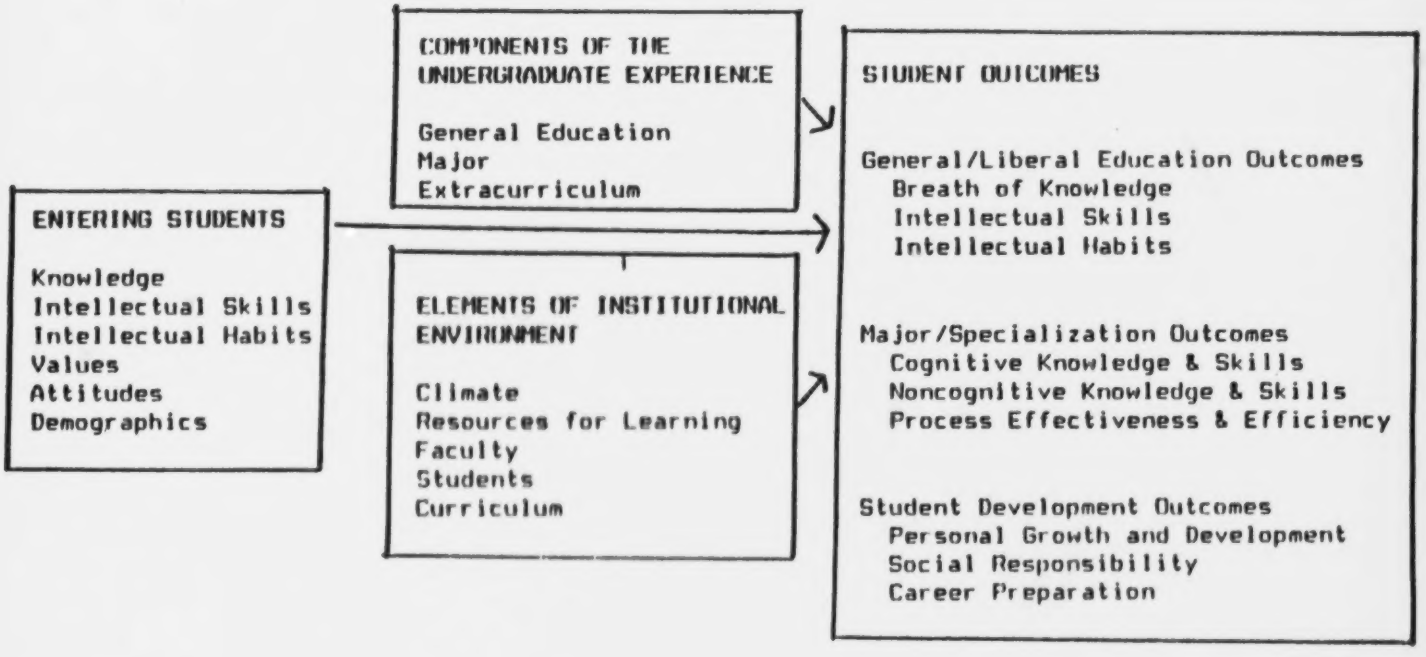
> enhancing the undergraduate experience by generating significant improvements in the quality of teaching and learning;
>
> proposing systematic and comprehensive plans to lead to improved teaching and learning; and
>
> ultimately focusing upon the institutional environment's effects on student learning and development.

FIGURE 2

A MODEL FOR ASSESSING UNDERGRADUATE EDUCATION

condensed from

PLAN FOR ASSESSING UNDERGRADUATE EDUCATION
AT THE UNIVERSITY OF ARIZONA
Conrad, et al. (1987)



Recommendations for Improvements in Assessing Undergraduate Professional Education

Accountability and assessment are deemed "here to stay" by most prominent scholars of higher education. The call for rejuvenating undergraduate education will not fade in the foreseeable future. Moreover, accreditation requirements continue to focus on all aspects of the educational experience -- including a solid liberal arts foundation for the professional curriculum. How can we facilitate the assessment process in professional schools? Can we use the base provided by the already present accreditation process? Is there a need to measure general education outcomes more thoroughly? Should they be highlighted at the end of the professional program? And if so, how can this be done?

It is our position, as implied above, that a comprehensive model is essential for assessing the quality and outcomes of professional education. It is not enough to gather separate, uncoordinated, helter-skelter data on students, courses, outcomes, facilities, and the like. Moreover, it is not enough to measure professional competence in traditional narrow ways.

We believe assessment in professional fields must rest in two important requirements. First, a comprehensive assessment envisions an undergraduate education for both general and specialized knowledge -- for general studies (including intellectual skills and habits) as well as professional competence -- and it should concern student development beyond the academic realm. Second, it should include the essential elements elaborated previously: it should make use of existing assessment mechanisms, be systematic and comprehensive, be intended to improve teaching and learning, and focus on the institutional environment's effects on learning and development.

Both from our reviews of the professional education literature and accreditation requirements and from our attention to professional schools in the case study institution, we conclude that this ideal is far from reality. Several specific recommendations for improving assessment in professional schools are reviewed below.

When general education "breadth of knowledge" is missing from an assessment program one common remedy is a standardized test of general studies knowledge. A case can be made for creating or purchasing such measures, or for joining national assessment networks already employing them. The vast assessment literature describes several measures of general education that address areas of cognitive learning. Centra (1987) outlines commercial tests which measure in part what most faculty believe should be part of general education. He also suggests that faculty-

developed indicators should supplement the assessment process so that program-specific outcomes can be included. Baird (1987) warns of the limitations of available measures of critical thinking, and questions validity of this mechanism when used in isolation of other assessment measures. Redman and Badnash (1988) demonstrate the usefulness of identifying outcomes of a broad-based liberal education that the profession agrees are essential to students in their particular discipline.

The drawbacks of this fine-sounding solution is that in professional fields, particularly at the senior level, students utilize their general education knowledge as it applies to their particular professional area of study. As Pascarella (1987) emphasizes, critical thinking is always <u>about</u> something. Students practice their critical thinking skills and all other general studies knowledge as well in their own particular areas of study. These areas would naturally vary from one professional field to another. To test areas of learning with the same mechanisms in all schools -- even as they relate to general learning goals, cognitive or otherwise -- would be not only useless but foolish.

A second remedy also concerns omissions of general education from professional education assessment. A report from the Professional Preparation Network (Stark & Lowther, 1987), recommends intensive collaboration between professional and liberal arts faculty. The report suggests that these faculty view education more broadly, articulating general abilities and characteristics common to most professional roles, and defining the educated professional graduate. The real benefit of such a merger of ideas could be to define the educated professional graduate in terms of the general education components common to all students, rather than the characteristics common to specific professional roles. Materials from the Professional Preparation Network Project, a guide for discussing professional and liberal study linkages, may be helpful.

A third remedy for the disconnected assessment efforts currently underway in professional schools lies in further research on the schools' educational efforts. The ideal would be to mount research efforts to link entry characteristics with professional competencies, and research to link professional instructional programs more directly to professional competencies. These research efforts are costly and time-consuming, however, and require long-range commitments from entire faculties and the administrators responsible for professional schools.

A fourth approach to admittedly incomplete professional schools' assessment programs would be research on the personal, general, and professional competencies of graduates. In our research at the six schools we studied, following students into professional practice was regarded as very important. The purposes would be

many -- e.g. monitoring graduates' employment success and satisfaction with their preparation. More comprehensive purposes might also be pursued -- for example examining the effects of liberal studies on the graduates' postgraduate lives. We found that while some professional schools have active studies in place or are developing studies of their graduates, all expressed an interest in improved contacts with graduates. Professional schools could share the burden of developing and implementing these studies or a more centralized effort, such as a continuing alumni study, could be a useful strategy.

Despite these varied remedies for improving inadequate program assessment, none alone will guarantee that the professional school will forge the important links between the institutional environment and student outcomes -- the link necessary for enhancing the undergraduate experience -- improving teaching and learning.

Our final recommendation, then, is that professional schools take the higher road, the more comprehensive, more difficult but potentially more rewarding approach to assessment. Data collected on students and on their education will be combined with diverse information on the general and professional programs, and will be linked to evidence about the students' professional competencies, their personal development, and their liberal education. Accreditation self studies will employ comprehensive rather than scattered data collection methods, and will be coordinated with -- rather than separated from -- the ongoing evaluation of students, faculty, and the professional program. In the end, only a comprehensive approach to assessment and to accreditation can bring about strengthened professional programs.

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